



MEETING MINUTES
October 14, 2014

Attendees:

| | | |
|-------------------|----------------------------|--|
| Amanda Schmidt | West Yost Associates | aschmidt@westyost.com |
| Anne Prudhel | Carollo Engineers | APrudhel@carollo.com |
| Augustus Cicala | EBMUD | acicala@ebmud.com |
| Bill Chavez | SRCS | chavezb@Sacsewer.com |
| Bill Miller | City of Sacramento | bmiller@cityofsacramento.org |
| Brian Avon | Golder Associates | brian_avon@golder.com |
| Brian Danley | Anchor Engineering | BDanley@anchorcm.com |
| Bryan Holm | City of Sacramento | bholm@cityofsacramento.org |
| Courtney Hall | West Yost Associates | chall@westyost.com |
| Delain Murphy | T&T Valve and Instrument, | dmurphy@tt-valve.com |
| Dillon Miele | SASD | mieled@sacsewer.com |
| Don Greb | Griffin Soil Group | don@griffinsoil.com |
| Don Wible | Nor-Cal Pipeline | don@norcalpipe.com |
| Edgar Benitez | Ameron Intl. | edgar.benitez@nov.com |
| Eniko Gaeto | ADS Pipe | eniko.gaeto@ads-pipe.com |
| George Chiu | EBMUD | gchiu@ebmud.com |
| Greg Hulburd | GHD | gregory.hulburd@ghd.com |
| Hank Williams | EBMUD | hankw@ebmud.com |
| Jennifer Glynn | RMC | jpglynn@rmcwater.com |
| Jill Chamberlain | Brown & Caldwell | jschamberlain@brwncald.com |
| Jill Sylvester | NV5 | jill.sylvester@nv5.com |
| Jimmy Dang | Oro Loma Sanitary District | jdang@oroloma.org |
| Kyle Broughton | Napa Sanitation District | kbroughton@napasan.com |
| Liana Olsen | CCCSD | lolsen@centralsan.org |
| Michael Heaton | Black & Veatch | HeatonMI@bv.com |
| Michael Penny | CCCSD | mpenny@centralsan.org |
| Mike Garcia | Hobas Pipe USA | mgarcia@hobaspipe.com |
| Nishant Parulekar | RMC | nparulekar@rmcwater.com |
| Pam Hopkins | EBMUD | phopkins@ebmud.com |
| Quoc Nham | City of Sacramento | gnham@cityofsacramento.org |
| Rob McMullin | EBMUD | rmcmulli@ebmud.com |
| Robert Allen | CDMSmith | allenrob@cdmsmith.com |
| Sasha Mestetsky | CCCSD | SMESTETS@centralsan.org |
| Thomas Lam | Union Sanitary District | Thomasl@unionsanitary.ca.gov |
| Thomas Vedder | P&F Distributors | tom@pfdistributors.com |
| Tom Frisher | HDR | tom.frisher@hdrinc.com |
| Tony Catizzone | Ameron Intl. | tony.catizzone@nov.com |
| Vern Phillips | Harris & Associates | vphillips@harris-assoc.com |
| Walter Pease | City of Pittsburg | WPease@ci.pittsburg.ca.us |
| Robert Latimer | ADS | Robert.Latimer@ads-pipe.com |
| Hamid Sarvi | FSSD | hsarvi@fssd.com |
| Danny Yang | Whitley Burchett | dyang@whitleyburchett.com |
| Lawrence Tam | URS | Lawrence.tam@urs.com |
| Rolf Ohlemutz | VSFCD | ROhlemutz@vsfcd.com |

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 Secretary, Nor Cal PUG

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|--------------|------------|--|
| Mohammed Ali | JDH | mali@jdhcorrosion.com |
| Chris Peters | B&C | cpeters@brownald.com |
| Mike Garcia | Contech ES | mgarcia@conteches.com |
| Derek Chin | USD | derekc@unionsanitary.ca.gov |
| Kevin Smith | EBMUD | smithk@ebmud.com |
| Bill Bonney | Insituform | wbonney@insituform.com |

Presentation: Corrosion and Corrosion Protection of Water & Waste Water Pipelines.
Presented by J. Darby Howard.

Highlights from the presentations include:

Mr. Howard showed pictures and explained the affects from corrosion and consequences of corrosion.

Every pipeline owner struggles to maximize/extend the useful life of water/wastewater pipelines on a budget

Pipe breakage is the result of the deterioration of the integrity of the pipe due to corrosion and forces or stresses induced onto the deteriorated pipe as a result of pipe operations or environmental factors.

What is corrosion?

"Corrosion is the deterioration of a material, usually a metal, that results from a reaction with its environment."

Corrosion is the natural process by which a metal reverts back to its oxidized state.

Causes of corrosion on underground ferrous piping systems

Variations in soil chemistry will create anodic and cathodic areas to form on pipelines

Variations in oxygen content in the soil will cause anodic and cathodic sites to form on a pipeline.

Graphitization of ductile/cast iron pipe results from concentration cell corrosion

Anode/Cathode Ratio

Ductile/Cast Iron Pipes are the anodes and the house foundations and copper grounding rods are the cathodes. As the number of structures and copper grounding increases the greater the resultant increase in external corrosion rate of the cast iron pipe

Stray Current Induced Corrosion

Stray current or electrolytic corrosion is caused by DC-powered traction systems, improperly grounded welding machines.....

Factors that affect the ability of soil to conduct an electric current

Chemical content of the soil

Amount of water present in the soil

Duration of wetness of the soil annually

Type of soil

Discussed how cathodic protection of a utility can affect another non protected pipeline.

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Copper laterals corrode when hooked up to plastic mains.

Handouts: None.

Thank you for the outstanding presentation! We appreciate your help with PUG.

General:

September 9, 2014 Meeting Minutes: A motion was made to approve the minutes, which was seconded.

Announcements:

2014/2015 Membership: The 2014/2015 membership renewal forms are available and located on the PUG website: www.norcalpug.com. Memberships cost is \$350 per entity. Membership has numerous benefits, such as discounts for courses and conferences, participation in raffles held at random monthly meetings, discounts on attending the annual seminar, etc. Get your renewals and/or new member applications in today. Payment options include Paypal or check.

Financial Updates: The current total in the organization account is \$38,165.08.

NASTT: Municipal Scholarships for NASTT are due soon. Friday, October 31, 2014

Northwest pipe has acquired Permalok.

Upcoming Webinars

PVC water pipe \$49.

Use of safety factors for water pipe \$175 – November 21, 2014

Journals and Articles

AC Pipe failure prediction

AC Pipe replacement

Value of water

Exploring potable water reuse

November meeting: The November meeting will be held at CCCSD on 11/18/14.

Underground Construction Magazine: is available at www.ucononline.com.

Raffles: No raffle was held at this meeting. Remember, raffles can happen at any meeting but you have to be in attendance to win a prize.

Project Discussions:

ARI just supplied 35 to 50 3-inch and 4-inch air relief valves with non-slam attachments for stantec.

Sasha Mestetsky with CCCSD went to the sliplining presentation. Davis is putting in five miles of sliplining over a five year period. Most installations are 36-inch pipe installed in an existing 42-inch.

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Vern Phillips with Harris & Associates. Harris is doing PM, Design and CM for \$16.8M upgrades to 7 pump stations and 13 miles of force mains and collection system. The majority of the rehab will be by pipe bursting and CIPP lining for 8' to 24" SS. One force main was rehabilitated by sliplining with HDPE pipe. 440 sewer manholes will also be rehabilitated.

Next Meeting:

The next general meeting is scheduled for Tuesday, January 13, 2015. The presentation topic will be on Axis Guided Boring.

Please call Brian Avon at 925-956-4800 or email Brian_Avon@Golder.com for additional information on this month's meeting minutes.